#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 99.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-020932

Address: 333 Burma Road **Date Inspected:** 26-Nov-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island **Location:** Shanghai, China

**CWI Name:** Mr. WU SHI GAO **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component: OBG** Segment

## **Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance (QA) Inspector Santhosh Ramakrishna Pillai was present during the times noted above for observations relative to fabrication work of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China.

This QA inspector randomly observed the following work:

#### 1. INPROCESS:

Orthotropic Box Girder (OBG) at Trial Assembly Area:

ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) of Repair weld for the bottom plate to side plate hold back weld joint located on east side of 11DW at counter weight side. The weld is designated as SEG071A-044. The welder is identified as 046709. ZPMC QC Mr. ZHU ZHONG HAI was onsite monitoring the welding variables. The inprocess SMAW appears to be progressing in compliance with WPS-345-SMAW-4G (4F)-FCM-Repair-1. The weld repair report number is named as WR-17735.

ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) of Repair weld for the I-Rib to Floor Beam (FL-3) plate weld joint located on 11DW at Panel Point (PP-106). The weld is designated as SSD10A-PP106-175. The welder is identified as 045133. ZPMC QC Mr. WU SHI GAO was onsite monitoring the

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welding variables. The inprocess SMAW appears to be progressing in compliance with WPS-345-SMAW-4G (4F)-FCM-Repair-1. The weld repair report number is named as WR-16212.

ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) of Repair weld for the bottom plate to side plate hold back weld joint located on east side of 11DW at cross beam side. The weld is designated as SEG071A-045. The welder is identified as 049502. ZPMC QC Mr. ZHU ZHONG HAI was onsite monitoring the welding variables. The inprocess SMAW appears to be progressing in compliance with WPS-345-SMAW-4G (4F)-FCM-Repair-1. The weld repair report number is named as WR-17734.

ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) of Repair weld for the I-Rib to Floor Beam (FL-3) plate weld joint located on 11DW at Panel Point (PP-105). The weld is designated as SSD11A-PP105-167. The welder is identified as 205718. ZPMC QC Mr. WU SHI GAO was onsite monitoring the welding variables. The inprocess SMAW appears to be progressing in compliance with WPS-345-SMAW-4G (4F)-FCM-Repair-1. The weld repair report number is named as WR-16212.

ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) of Repair weld for the side plate to side plate transverse splice weld joint located on 11DW+11EW at cross beam side. The weld is designated as OBW11C-009. The welder is identified as 046704. ZPMC QC Mr. ZHOU PENG was onsite monitoring the welding variables. The inprocess SMAW appears to be progressing in compliance with WPS-345-SMAW-3G (3F)-FCM-Repair-1. The weld repair report number is named as CWR-2269.

ZPMC welding personnel performing Flux Core Arc Welding (FCAW) of Complete Joint Penetration (CJP) welds joining the traveler rail bracket weld joint located on 11CW at Panel Point (PP-102). The weld is designated as TR1C-PP102-006. The welder is identified as 053486. ZPMC QC Mr. ZHU ZHONG HAI was onsite monitoring the welding variables. The inprocess FCAW appears to be progressing in compliance with WPS-B-T-2233-TC-U4c-F.

#### 2. NDT:

Magnetic Particle Testing (MT):

MT carried out as per the ZPMC submitted Notification No 07501.

This QA Inspector performed Magnetic Particle Testing (MT) of approximately 15% of the area that has been previously tested and accepted by ZPMC MT technicians. This QA Inspector generated a TL-6028 MT report on this date. The weld designation numbers is as follows:

SEG068B-007 & 008, SEG068C-007 & 008, SEG070B-011, 012, 031, 032, 043 & 007 & SEG070C-027, 028, 041, 042, 044 & 022.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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# **Summary of Conversations:**

No relevant conversations were reported on this date.

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Pillai,Santosh	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer